

**IN THE UNITED STATES DISTRICT COURT
FOR THE WESTERN DISTRICT OF TEXAS
WACO DIVISION**

BIG WILL ENTERPRISES INC.

Plaintiff,

v.

**ALINSCO MANAGING GENERAL
AGENCY, INC.**

Defendant.

Civil Action File No.: 6:23-cv-00341

JURY TRIAL DEMANDED

COMPLAINT FOR PATENT INFRINGEMENT

Plaintiff Big Will Enterprises Inc. (“BWE” or the “Plaintiff”) in British Columbia, by and through their undersigned attorneys, files this original Complaint against Alinsco Managing General Agency, Inc. (“Alinsco” or “Defendant”) and alleges, based on its own knowledge with respect to itself and its own actions and based on information and belief as to all other matters, as follows:

INTRODUCTION

1.

This is an action for patent infringement arising under the patent laws of the United States, Title 35, United States Code to enjoin infringement and obtain damages from Defendant’s unauthorized manufacture, use, sale, offer to sell, and/or importation into the United States for the subsequent use or sale of products or methods that infringe one or more claims of United States Patents: 10,521,846; 9,049,558; 8,737,951; 8,559,914; and 8,452,273.

2.

BWE is an innovative company in sensor technology for determining human activities for health, safety and other uses. BWE's sensor-based technologies go beyond determining simple human locations and offer smartphone users (and other communication-based devices) a personal surveillance system based on their activities. The technologies monitor sensors such as the accelerometer, the gyroscope and others for uniquely identifying human activities; the motion activities can include, for example, but not limited to, standing/stationary, walking, running, driving, skiing, sleeping, snoring, hiking, skateboarding, sky diving, bicycling, unicycling, golfing, falling down, swimming, riding a ski lift, a motor vehicle, a motorcycle, an airplane, a train, or a water vessel, accelerating or decelerating in a motor vehicle, motorcycle, train, airplane, or water vessel, vibrating, propagating through a medium, rotating, riding in a wheelchair, and other human movements, where capturing data and/or providing feedback is desired. BWE has created proprietary technologies in this field of technology since at least 2007 for, among other benefits, the increased health, safety, and wellbeing of its users. BWE's patented technology was developed for use on a wide variety of devices, including smartphones, smartwatches, and other communication and sensor-based devices in use on many popular products in the market today. In addition to licensing, BWE has incorporated its patented technology in its own test platforms for determining human activities, motions within activities, accidents and falls, among others.

3.

A primary inventive concept is method by which a particular human movement can be identified, when the sensors, in this case, those in a mobile phone, have no fixed orientation with respect to the human. A smart phone may be in a user's pocket, purse or backpack, for example and in no particular orientation. U.S. 8,452,273 cols. 1-3. BWE's sensor monitoring, processing

and communication technology is covered by the claims of the '846, '558, '951, '914, and the '273 Patents asserted in this action, as well as other BWE patents.

JURISDICTION AND VENUE

4.

BWE is a British Columbia company, incorporated in Canada having its principal place of business at 4573 West 1st Avenue, Vancouver, British Columbia V6R 1H7, Canada.

5.

Upon information and belief, Alinsco is an insurance company incorporated under the laws of Texas with its corporate headquarters located at 6030 Lake Worth Boulevard, Fort Worth, Texas 76135-3706.

6.

Upon information and belief, Alinsco Managing General Agency, Inc. may be served through its registered agent for service, Anthony Icenogle, at 6907 North Capital of Texas Highway, Suite 200 Austin, Texas 78731.

7.

This is an action for infringement of a United States patent arising under 35 U.S.C. §§ 271, 281, and 284-285, among others. This Court has subject matter jurisdiction over all causes of action set forth herein pursuant to 28 U.S.C. §§ 1331 and 1338(a) because this action arises under the patent laws of the United States, 35 U.S.C. §§ 1 *et seq.*

8.

Defendant is subject to this Court's specific and general personal jurisdiction under due process and/or the Texas Long Arm Statute due at least to Defendant's substantial business in this judicial district, including: (i) at least a portion of the infringement alleged herein; and (ii)

regularly doing or soliciting business, engaging in other persistent courses of conduct, or deriving substantial revenue from goods and services provided to individuals in Texas and in this District.

9.

Venue is proper against the Defendant in this District pursuant to 28 U.S.C. § 1400(b) because Alinsco has maintained an established and regular places of business in this District and has committed acts of patent infringement in this District. *See, In re: Cray Inc.*, 871 F.3d 1355, 1362-1363 (Fed. Cir. 2017).

10.

Defendant maintains regular and established places of business in this District. Specifically, Defendant intends to do and do business in, has committed acts of infringement in, and continues to commit acts of infringement in this District directly, through intermediaries, by contributing to and through their inducement of third parties (including their agents, subsidiaries, partners, affiliates, and end-users), and offers its products or services, including those accused of infringement here, to customers and potential customers located in Texas, including in this District.

11.

Upon information and belief and based upon public information, Defendant owns, operates, manages, conducts business, and directs and controls the operations of, and has agents and employees that work from and out of, facilities at locations in this District, including, but not limited to, facilities at the following addresses: (1) 9310 Georgian Drive Suite A, Austin, TX 78753; (2) 8817 North Lamar Blvd. Suite B, Austin, TX 78753; (3) 4315 S 1st St Suite B, Austin, TX 7874; (4) 1606 Fredricksburg Rd Suite 2, San Antonio, TX 78201; (5) 626 Elliot Knox Boulevard, I-35BL, New Braunfels, TX 78130; (6) 1800 N Mays Street Suite 102, Round Rock, TX 78664; (7) 905 N 2nd Street, Killeen, TX 76541; (8) 15630 Vision Drive Suite E, Pflugerville,

TX 78660; (9) 1234 Casteroville Road, San Antonio, TX 78237; and (10) 8711 Burnet Road, Suite E50, Austin, TX 78757.

12.

On information and belief, Defendant's insurance products and services are offered for sale and sold to customers residing in this State and District. Defendant also provides an online presence under the name www.alinsco.com which is available to customers and prospective customers within this State and District. Defendant advertises that "Alinsco Insurance is proud to be represented by thousands of skilled independent insurance agents who are ready to assist you in your car insurance. Since 2003, we have served millions of Texans by understanding their auto insurance needs and delivering quality coverage at a great rate.." www.alinsco.com.

13.

These authorized agents, including those in this State and District, have actual and apparent authority to act on behalf of Alinsco in this District. As a result of Defendant's business activities in this State and District, on information and belief, Defendant has had continuous and systematic contacts with this State and District, including sales to customers residing in this State and District.

14.

Defendant sells various car insurance products, including Alinsco Annual, Alinsco Bravo, Alinsco Enhanced, Alinsco Select and Alinsco Zoom. Defendant is a "non-traditional" insurer, meaning the company writes policies with a higher degree of risk than traditional insurance agencies. Alinsco Insurance employs more than 63 people and generates approximately \$18 million in annual revenue. Defendant commits acts of infringement from this District, including, but not limited to, making, using, providing, supplying, selling, offering for sale, or distributing the Alinsco application.

15.

Based upon public information, Defendant, directly and/or through its agents, partners, parents, subsidiaries, and/or intermediaries, also operates, advertises, and/or controls the locations throughout this District through which Defendant and its agents and employees use, advertise, provide, and/or educate third parties, including but not limited to customers, about the Alinsco application.

16.

Defendant commits acts of induced infringement in this District, including, but not limited to inducing infringement by its parents, subsidiaries, partners, affiliates, and/or end-users through their use the Alinsco application. Defendant commits acts of contributory infringement in this District, including, but not limited to contributing to infringement by its parents, subsidiaries, partners, affiliates, and/or end-users through their use of the Alinsco application.

ALLEGATIONS COMMON TO ALL COUNTS

17.

Plaintiff (“BWE”) owns all right, title, interest in, and has standing to sue for infringement the following patents: United States Patent No. 10,521,846 (“the ’846 Patent”), entitled “Targeted advertisement selection for a wireless communication device (WCD)”, issued on December 31, 2019; United States Patent No. 9,049,558 (“the ’558 Patent”), entitled “Systems and methods for determining mobile thing motion activity (MTMA) using sensor data of wireless communication device (WCD) and initiating activity-based actions,” issued on June 02, 2015; United States Patent No. 8,737,951 (“the ’951 Patent”), entitled “Interactive personal surveillance and security (IPSS) systems and methods,” issued on May 27, 2014; United States Patent No. 8,559,914 (“the ’914 Patent”) entitled “Interactive personal surveillance and security (IPSS) systems and methods,” issued on October 15, 2013; and United States Patent No. 8,452,273 (“the ’273 Patent”), entitled

“Systems and methods for determining mobile thing motion activity (MTMA) using accelerometer of wireless communication device,” issued May 28, 2013. Copies of the ’846 Patent, the ’558 Patent, the ’951 Patent, the ’914 Patent and the ’273 Patent are attached as Exhibits 1-5.

18.

BWE is a global leader and innovator in the field of sensor technology for determining human activities for health, safety and other uses. These proprietary technologies and innovations have been developed since 2007 for the increased health, safety and well-being of its users. BWE patented technology was developed for use on a wide variety of devices, including smartphones and wearables and is in use on many popular products in the market today. In addition to licensing, BWE has incorporated its patented technology in its own test platforms for determining human activities, motions within activities, accidents, and falls, among others.

19.

BWE’s sensor-based technologies go beyond determining human locations by uniquely identifying human activities for automatically monitoring and tracking movements, such as (a) the user travel method (e.g., car, bus, motorcycle, bike, snow skiing, skateboarding, bicycling, water vessel, airplane, train, swimming, etc.) and/or (b) the user motions (walking, running, climbing, falling, standing, laying down, bicycle peddling, swim strokes, etc.) and other human movements where capturing data and/or providing feedback is desired.

20.

BWE’s sensor monitoring, processing and communication technologies are covered by the claims of the ’846 Patent, the ’558 Patent, the ’951 Patent, the ’914 Patent and the ’273 Patent which are asserted in this action,. as well as other BWE patents.

21.

Defendant is in the business of engineering, designing, supplying, marketing, advertising, and selling consumer insurance products and services, including the Alinsco application.

COUNT I

DIRECT INFRINGEMENT OF THE '846 PATENT

22.

Plaintiff incorporates by reference the allegations of Paragraphs 1-21.

23.

The claims of the '846 patent are not directed to an abstract idea and are not limited to well-understood, routine, or conventional activity. Rather, the claimed inventions include inventive components that allow detection of various motion activities from sensors whose orientation is dynamic and unknown.

24.

The written description of the '846 patent describes in technical detail each limitation of the claims, allowing a skilled artisan to understand the scope of the claims and how the non-conventional and non-generic combination of claim limitations is patently distinct from and improved upon what may have been considered conventional or generic in the art at the priority date. The '846 patent also identifies and circumscribes all information necessary for a skilled artisan to perform each limitation in the claims in light of that which was known in the art at the priority date.

25.

Defendant has directly infringed and continues to directly infringe at least one or more claims of the '846 Patent, through, among other activities, making, using, and incorporating into Defendant's Alinsco application claimed systems and methods. Defendant's Alinsco application

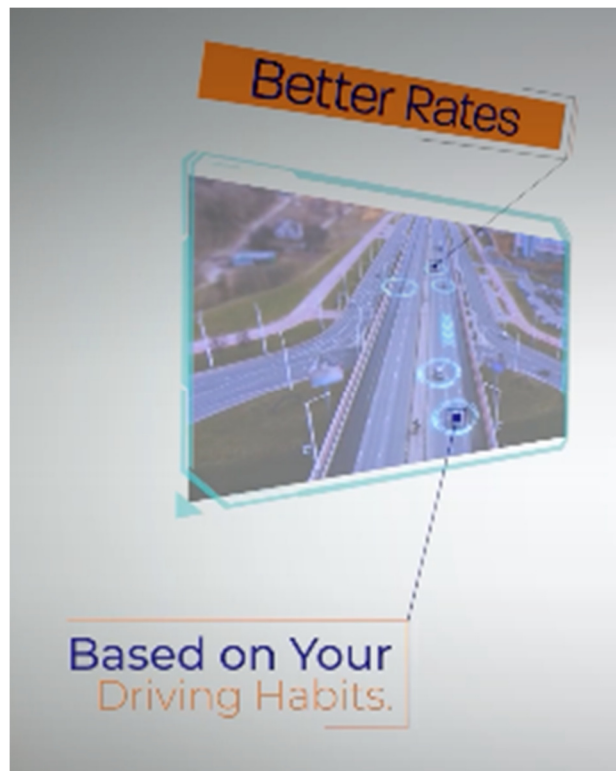
is provided, at least in part, as a smartphone-deployed driver-behavior monitoring and reporting solution.

26.

Independent Claim 1 of the '846 Patent, shown in italics, recites:

1. A method for use in connection with a wireless communication device (WCD) transported by a mobile thing (MT), the WCD having a computer architecture that has access to a memory, comprising: determining a mobile thing motion activity (MTMA) associated with the MT that is transporting the WCD based at least in part upon sensor data, the sensor data derived from one or more sensors associated with the WCD,

Defendant's Alinsco application is a telematics system that uses a smartphone application for determining and reporting unsafe driver behaviors. The system includes smartphone accelerometers and gyroscopes for monitoring driver behaviors, such as harsh braking, aggressive acceleration, and cornering.



the one or more sensors measuring physical movement of the WCD in three dimensional space and producing data sets comprising three movement

values and a time value, each of the three movement values indicative of physical movement of the WCD relative to a respective axis in a three dimensional (3D) coordinate system at the time value in order to permit statistical analysis of the physical movement;

The Alinsco application records driver behaviors with sensors monitoring acceleration (“accelerometer”) sensor data and/or angular velocity (“gyroscope”) sensor data over time periods from the internal smartphone sensor(s). The data from the 3-axis accelerometer and/or gyroscope is measured by using time values for statistical analysis for determining motion activities such as when starting and stopping driving, sharp cornering and other unsafe driving habits.

Claim 1 continues:

selecting an advertisement based at least in part upon the determined MTMA; causing the advertisement to be communicated to the WCD; and

The application offers customizable driver reporting and messaging.



- × Can earn an additional 25% discount upon renewal (telematics required)



wherein the determining the MTMA comprises: storing a plurality of reference MTMA signatures in the memory, each of the MTMA signatures including frequency and/or time information associated with sensor data pertaining to a specific MTMA;

The application stores reference data that contains accelerometer and gyroscope acceleration data that uses frequency and time for accurately identifying each activity (i.e. driving, cornering, et cetera) from the device movements (accelerations).

determining a normalizing mathematical relationship so that different data sets separated in time can be analyzed in the 3D coordinate system; using the normalizing mathematical relationship, determining normalized data sets; analyzing the normalized data sets in the frequency and time domains;

The raw accelerometer data contains gravity accelerations must be normalized (removing the extra data) for accurately measuring the accelerometer's *x*, *y* and *z* axes. Gravity may be used for determining the 3D coordinate system's *z* axis or vertical (and subsequently horizontal) positions for normalizing the live data into sets of data sets that are orthogonal (vertical *z* axis and horizontal *x* and *y* axes) so the frequency and time domains are measuring vertical and horizontal accelerations separately and accurately.

Claim 1 concludes:

determining likelihoods associated with the stored MTMA signatures based at least in part upon the analyzing; and selecting a most likely MTMA signature from the plurality of MTMA signatures based at least in part upon the likelihoods.

Based on a range of live data sets and how accurately these data sets match the motion activity referenced data, the motion activity is determined (or not) based on the likelihood ("thresholds and/or ranges of the frequency and time domains") set.

27.

Claim 2 of the '846 Patent, for example, recites:

2. The method of claim 1, wherein the advertisement is communicated to the WCD via an email or text message.

The Alinsco application monitors driver behavior and uses advertisement notifications and/or reward messages so participants are automatically enrolled to receive “in-app” messages, text messages and/or summary emails.

28.

Claim 3 of the '846 Patent, for example, recites:

3. The method of claim 1, further comprising determining an identification (ID) of the MT and wherein the selecting the advertisement is further based at least in part upon the determined ID in addition to the determined MTMA.

The Alinsco application monitors driver behavior and receives advertisements promoting driving score, points, and/or standings. This allows the server to message directly to the application user-based or updated advertisements.

29.

Claim 4 of the '846 Patent, for example, recites:

4. The method of claim 1, further comprising determining a location of the WCD and wherein the selecting the advertisement is further based at least in part upon the location in addition to the determined MTMA.

The Alinsco application monitors driver behavior and determines a location in which a violation occurs (also when drivers finish and/or start routes). Notifications and updated screens that show route and violation locations, and driver scores are updated and provided to the application user and fleet managers.

30.

Claim 5 of the '846 Patent, for example, recites:

5. The method of claim 1, further comprising receiving a payment for or otherwise monetarily benefiting from causing the advertisement to be communicated.

The Alinsco application monitors driver behavior and uses driver scores and gamification awards to change and improve driver behaviors.

31.

Claim 6 of the '846 Patent, for example, recites:

6. The method of claim 1, wherein the causing comprises enabling an advertiser to communicate the advertisement to the WCD by advising a remote computer system associated with the advertiser of the MTMA.

The Alinsco application monitors driver behavior and uses a driver's risky behavior to send predefined advertisements from a remote computer system that may be re-configured from time to time.

32.

Claim 7 of the '846 Patent, for example, recites:

7. The method of claim 1, further comprising enabling a user of the WCD to enable and disable the causing of the advertisement.

The Alinsco application allows smartphone users to optionally receive notifications and messages sent to their phones and email addresses.

33.

Claim 8 of the '846 Patent, for example, recites:

8. The method of claim 1, wherein the sensor data is derived from an accelerometer, a gyroscope, or both.

The Alinsco application monitors driver behavior using sensor data from the accelerometer and/or the gyroscope.

34.

Claim 9 of the '846 Patent, for example, recites:

9. The method of claim 1, wherein the steps are performed in the WCD itself or in one or more communicatively coupled computer systems that are remote from the WCD and that receive the sensor data from the WCD.

The Alinsco application monitors driver behavior from the internal sensors and also uses servers to make certain decisions that enhance the accuracy of smartphone data. For example, the driver score is calculated based on at least in part the smartphone's sensor data that determines violations such as hard braking, fast accelerations and aggressive cornering.

35.

Claim 10 of the '846 Patent, for example, recites:

10. The method of claim 1, wherein the WCD is communicatively coupled to a remote computer system and wherein the memory is associated with the remote computer system.

The Alinsco application monitors driver behavior and uses the sensors and also uses servers to make certain decisions that are remote from the user's smartphone.

36.

Independent Claim 12 of the '846 Patent, shown in italics, recites:

12. A wireless communication device (WCD) transported by a mobile thing (MT), comprising: one or more transceivers designed to enable access to a remote computer system, the remote computer system designed to select a targeted advertisement and enable the advertisement to be communicated or accessed by the WCD;

The Alinsco application is a system that uses a smartphone application for determining and reporting unsafe driver behaviors. The system includes smartphone accelerometers and gyroscopes for monitoring driver behaviors, such as hard braking and cornering.



one or more sensors associated with the WCD designed to produce sensor data, the sensor data indicative of physical movement of the WCD in three dimensional space and including data sets comprising three movement values and a time value, each of the three movement values indicative of physical movement of the WCD relative to a respective axis in a three dimensional (3D) coordinate system at the time value in order to permit statistical analysis of the physical movement;

The Alinsco application monitors driver behaviors through the use of accelerometers with 3 or more axis sensors and/or gyroscopes with 3 or more axis sensors for monitoring three dimensional space for representing the driver's movements. The data from the 3-axis accelerometer and/or gyroscope data is measured by using time values for statistical analysis for determining motions and activities.

Claim 12 continues:

one or more memories designed to store computer program code; and one or more processors designed to execute the computer program code, the computer program code comprising: code designed to determine mobile thing motion activity (MTMA) of the MT that is transporting the WCD based at least in part upon the sensor data and the statistical analysis of the physical movement of the WCD;

The Alinsco application uses memory to store the program code and processor(s) to execute the program code. The application code monitors the motion activity for determining at least in part

motion activity (driving, aggressively cornering, and accidents) through the use of the sensor data and the statistical analysis of the movement.

Claim 12 continues:

code designed to communicate the sensor data or a mobile thing motion activity (MTMA) of the MT that is transporting the WCD and that is derived from the sensor data via the one or more transceivers to the remote computer system in order to enable selection of the targeted advertisement that is suited for the determined MTMA; code designed to receive and locally communicate the advertisement to a user interface of the WCD; and

The Alinsco application code communicates the sensor data and motion activities of the smartphone to servers that process the same into driver scores, awards, and notifications that are used in the advertisements sent to driver. The code communicates the score, awards, and notifications to the smartphone display.

wherein the code designed to determine the MTMA comprises: code designed to store a plurality of reference MTMA signatures in the memory, each of the MTMA signatures including frequency and/or time information associated with sensor data pertaining to a specific MTMA; code designed to determine a normalizing mathematical relationship so that different data sets separated in time can be analyzed in the 3D coordinate system;

Normalizing the live data into sets of data that may be measured in the frequency and time domains allows the live 3D (3 or more axes from the accelerometer and/or gyroscope) data to be compared to the reference data. The application code is used to determine time separations of the raw data so it may be analyzed in a 3D coordinate system.

code designed to, using the normalizing mathematical relationship, determine normalized data sets; code designed to analyze the normalized data sets in the frequency and time domains; code designed to determine likelihoods associated with the stored MTMA signatures based at least in part upon the analyzing; and code designed to select a most likely MTMA signature from the plurality of MTMA signatures based at least in part upon the likelihoods.

The application code is used to match timed data and analyze the normalized data sets in the frequency and time domains. The code determines the likelihoods of the stored reference data,

and selects the most likely motion activity from a plurality of reference data (signatures) based on such likelihoods.

37.

Claim 13 of the '846 Patent, for example, recites:

13. The WCD of claim 12, wherein the program code further comprises code to determine an identification (ID) associated with the MT and wherein the code to select the advertisement makes the selection based at least in part upon the determined ID of the user.

The Alinsco application monitors individual driver behaviors, and provides scoring, coaching, and route details to each driver. The system also uses a smartphone unique identifier to connect and send messages from the server to a driver's application.

38.

Claim 14 of the '846 Patent, for example, recites:

14. The WCD of claim 12, wherein the program code further comprises code to determine a location of the WCD and wherein the code to select the advertisement makes the selection based at least in part upon the location.

The Alinsco application monitors driver behavior and determines a user's location and provides advertisements to the user when the user engages unsafe driving, finishes an activity (end of route), or when the user starts a new route.

39.

Claim 15 of the '846 Patent, for example, recites:

15. The WCD of claim 12, wherein the sensor data is derived from an accelerometer, a gyroscope, or both.

The Alinsco application monitors driver behaviors (e.g., driving, hard braking and cornering) through the accelerations determined from an accelerometer and/or gyroscope.

40.

Claim 16 of the '846 Patent, for example, recites:

16. The system of claim 12, wherein the computer program code further comprises: code to determine a mathematical relationship between different data sets to enable analysis of the different data sets in the 3D coordinate system; and code to determine the MTMA based at least in part upon the analysis of the different data sets in the 3D coordinate system.

The Alinsco application monitors driver behavior by determining a mathematical relationship between reference x , y and z data and different x , y and z data sets coming from the accelerometer and/or gyroscope in the 3D coordinate system. Multiple data sets matching an activity over a time period is used to confirm most activities before logging.

COUNT II

DIRECT INFRINGEMENT OF THE '558 PATENT

41.

Plaintiff incorporates by reference the allegations of Paragraphs 1-21.

42.

The claims of the '558 patent are not directed to an abstract idea and are not limited to well-understood, routine, or conventional activity. Rather, the claimed inventions include inventive components that allow detection of various motion activities from sensors whose orientation is dynamic and unknown.

43.

The written description of the '558 patent describes in technical detail each limitation of the claims, allowing a skilled artisan to understand the scope of the claims and how the non-conventional and non-generic combination of claim limitations is patently distinct from and improved upon what may have been considered conventional or generic in the art at the priority date. The '558 patent also identifies and circumscribes all information necessary for a skilled artisan to perform each limitation in the claims in light of that which was known in the art at the priority date.

44.

Defendant has directly infringed and continues to directly infringe at least one or more claims of the '558 Patent, through, among other activities, making, using, and incorporating into Defendant's Alinsco application claimed systems and methods. Defendant's Alinsco application is provided, at least in part, as a smartphone-deployed driver-behavior monitoring and reporting solution.

45.

Independent Claim 1 of the '558 Patent, shown in italics, recites:

1. A method, comprising: receiving a time value and at least three streams of data sample values from one or more sensors of a wireless communication device (WCD) that is transported by a mobile thing (MT), each data sample value indicative of movement of the WCD at a corresponding time value;

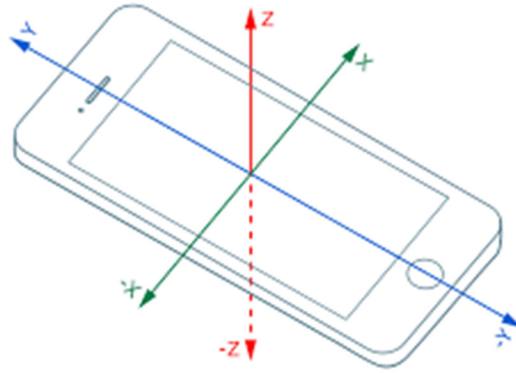
The Alinsco application is a smartphone solution that detects driving behaviors. The system uses a smartphone application for determining and reporting unsafe driver behaviors. The system utilizes the smartphone accelerometers and/or gyroscopes for monitoring driver behaviors, such as hard braking, unsafe maneuvers, rapid acceleration, and phone usage distractions.



Claim 1 continues:

recognizing a particular set of data sample values as a reference for defining an orientation of the WCD in a coordinate system;

The Alinsco application monitors the smartphone's three-axis accelerometers and three-axis gyroscopes to determine driver behaviors by using the accelerometer x , y and z axis data to sense and determine gravity. Defining the orientation of gravity determines a reference and orientation to increase the accuracy of identifying a Motion Activity (MT). Defining the ongoing stream of data representing gravity and orientation of gravity allows the data to be calculated for neutralizing the gravity inputs on one or more axes.



computing reference data based upon the recognition of the particular set, the reference data defining a relationship between each set of subsequent non-reference data sample values and the particular reference set of data sample values in the coordinate system;

The Alinsco application monitors driver behavior by computing the smartphone's accelerometer x , y and z axis reference data that accounts for gravity. The live data is used for determining gravity accelerations, which is used within the reference data. Each segment of reference data represents the axis orientation and/or the removal of gravity accelerations from the x , y or z axis over time (sets, window, time domain, et cetera).

calculating movement data in the coordinate system of one or more other non-reference data sample values based upon the reference data; and

The Alinsco application monitors driver behaviors and computes the live movement accelerations in x , y and z accelerometer axis data over a short period of time (data blocks, sets, time domain, et cetera).

determining a mobile thing motion activity (MTMA) associated with the MT based upon the movement data.

The Alinsco application determines when users are driving in safe/unsafe manners (harsh braking, aggressive acceleration, and distractions) from the movements (accelerations) determined from the accelerometer and/or gyroscope data.

46.

Independent Claim 17 of the '558 Patent, shown in italics, recites:

17. A method, comprising: receiving first and second data from one or more sensors associated with a wireless communication device (WCD) transported by a mobile thing (MT), the first and second data indicative of movement of the WCD;

The Alinsco application is a smartphone solution that detects driving behaviors. The system uses a smartphone application for determining and reporting unsafe driver behaviors. The system utilizes the smartphone accelerometers and/or gyroscopes for monitoring driver behaviors, such as hard braking, unsafe maneuvers, rapid acceleration, and phone usage distractions.

Claim 17 continues:

determining reference data that defines a reference framework from the first data;

The smartphone application monitors driver behavior by using reference accelerometer and gyroscope data for the x , y , and z axes in a framework that allows for the recalculation of the data without the influences of gravity and/or using gravity for determining vertical and horizontal orientations of the accelerometer axes. The reference framework also includes the data from the time and frequency domain.

normalizing the second data with the reference data so that the second data can be analyzed in the reference framework; and

The accelerometer data is normalized in time and frequency domain (sets) so the similar time and frequency may analyzed in the reference framework.

identifying a mobile thing motion activity (MTMA) associated with the MT based upon the normalized second data.

A comparison of the normalized second reference data with the live accelerometer and gyroscope data is used for determining when users are driving unsafely and for identifying hard braking, hard accelerations, hard cornering.

47.

Independent Claim 27 of the '558 Patent, shown in italics, recites:

27. A method for implementation in a wireless communication device (WCD) that is designed to detect a plurality of mobile thing motion activities (MTMAs) associated with a mobile thing (MT), comprising:

The Alinsco application is a smartphone solution that detects driving behaviors. The system includes a smartphone application that utilizes the smartphone accelerometers and/or gyroscopes for monitoring driver behaviors, such as hard braking, unsafe maneuvers, rapid acceleration, and phone usage distractions.

Smart Driving Telematics

Smart Driving Discounts are now Available to All Texas Drivers.



<https://www.alinscoagents.com/smart-driving>.

receiving a plurality of data sample values from one or more sensors of the WCD that is transported by the MT, the data sample values indicative of movement of the WCD;

The Alinsco application includes three-axis accelerometers and three-axis gyroscopes for monitoring when users are driving, and the user behavior while driving by collecting and processing accelerometer and gyroscope data.

computing reference data, the reference data defining a relationship between data sample values and a reference framework to enable

comparison of data sample values; calculating movement data based upon the reference data and the data sample values; and

The Alinsco application computes reference data within a time and frequency domain framework (values, size, time, peaks, frequencies, filtering out dominant frequencies, etc.) with accelerometer and gyroscope data that come from sensors.

determining an MTMA associated with the MT based upon the movement data.

A comparison of the three-axis accelerometer and/or three-axis gyroscope data with reference data is used to determine safe/unsafe styles of driving.

48.

Independent Claim 42 of the '558 Patent, shown in italics, recites:

42. A system, comprising: one or more memories designed to store computer program code; one or more processors designed to execute the computer program code; and wherein the computer program code comprises:

The Alinsco application is a smartphone solution that detects driving behaviors. The system uses a smartphone application that employs the smartphone accelerometers and/or gyroscopes for monitoring driver behaviors, such as hard braking, unsafe maneuvers, rapid acceleration, and phone usage distractions.

Smart Driving Telematics

Smart Driving Discounts are now Available to All Texas Drivers.



<https://www.alinscoagents.com/smart-driving>.

code to receive first and second data from one or more sensors associated with a wireless communication device (WCD) transported by a mobile thing (MT), the first and second data indicative of movement of the WCD;

The Alinsco application for determining/reporting unsafe driver behaviors includes three-axis accelerometers and three-axis gyroscopes for monitoring driver behavior by using code that analyzes accelerometer data and gyroscope data associated with the smartphone sensors. The accelerometer and gyroscope is indicative of the movement of the smartphone device.

code to determine reference data that defines a reference framework from the first data;

The Alinsco application monitors driver behavior by using code that defines how reference data for hard braking, hard accelerations, hard cornering, and phone handling while driving, and others will be compared to the actual movements/accelerations.

code to normalize the second data with the reference data so that the second data can be analyzed in the reference framework; and

Data sets from the movements (accelerations) are normalized by values, ranges, frequencies and/or time so as to be compared to reference data.

code to identify a mobile thing motion activity (MTMA) associated with the MT based upon the normalized second data.

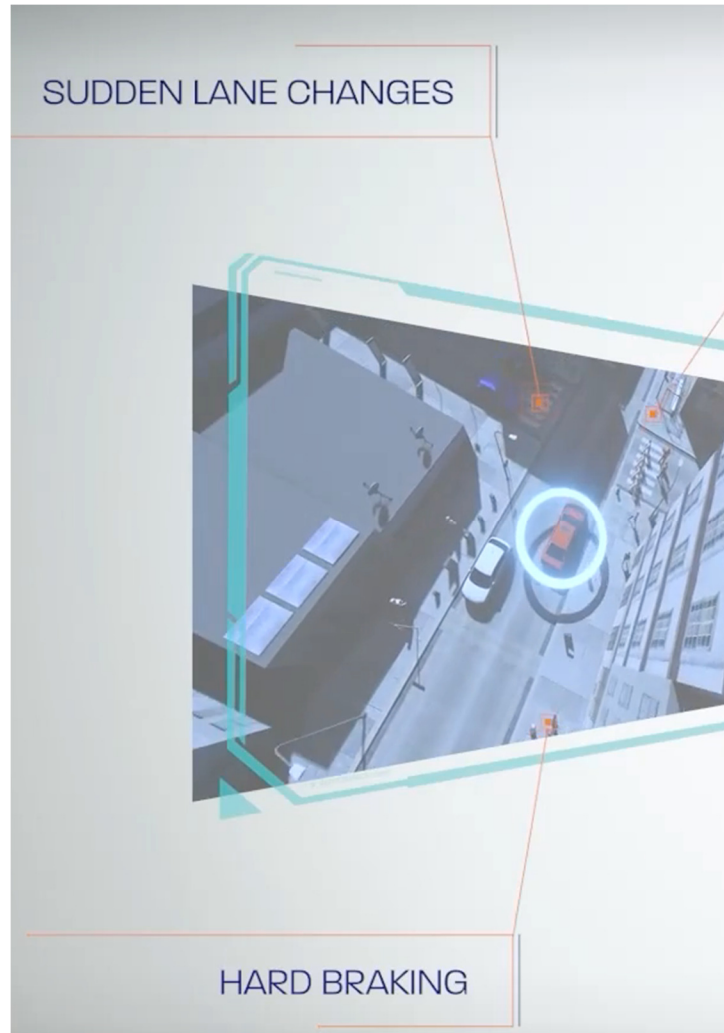
The system monitors driver behavior by executing application code that identifies motion activity, such as unsafe styles of driving based on comparing the data by the normalized second step.

49.

Independent Claim 52 of the '558 Patent, shown in italics, recites:

52. A system for implementation in a wireless communication device (WCD) that is designed to detect a plurality of mobile thing motion activities (MTMAs) associated with a mobile thing (MT), comprising: one or more memories designed to store computer program code; one or more processors designed to execute the computer program code; and wherein the computer program code comprises:

The Alinsco application is a smartphone solution that detects driving behaviors. The system uses a smartphone application for determining and reporting unsafe driver behaviors. The system utilizes the smartphone accelerometers and/or gyroscopes for monitoring driver behaviors, such as hard braking, unsafe maneuvers, rapid acceleration, and phone usage distractions.



code to receive a plurality of data sample values from one or more sensors of the WCD that is transported by the MT, the data sample values indicative of movement of the WCD;

The Alinsco application monitors driver behavior using code to receive and monitor the x , y and z axis data from accelerometer and/or gyroscope sensors within the wireless communication device that are indicative of movement of the wireless communication device.

code to compute reference data, the reference data defining a relationship between data sample values and a reference framework to enable comparison of data sample values;

The Alinsco application monitors driver behavior by using code that computes reference data with samples of live data to determine activities such as hard braking, hard accelerations and hard cornering occurrence via activity identifications.

code to calculate movement data based upon the reference data and the data sample values; and

The Alinsco application monitors driver behavior by using code that computes movement data and reference data.

code to determine an MTMA associated with the MT based upon the movement data.

The Alinsco application monitors driver behaviors by using code that identifies motion activity, such as driving, unsafe types of driving (hard braking, hard accelerations, hard cornering and when users are distracted by unsafe phone uses) based on the normalized data.

COUNT III

DIRECT INFRINGEMENT OF THE '951 PATENT

50.

Plaintiff incorporates by reference the allegations of Paragraphs 1-21.

51.

The claims of the '951 patent are not directed to an abstract idea and are not limited to well-understood, routine, or conventional activity. Rather, the claimed inventions include inventive components that allow detection of various motion activities from sensors whose orientation is dynamic and unknown.

52.

The written description of the '951 patent describes in technical detail each limitation of the claims, allowing a skilled artisan to understand the scope of the claims and how the non-conventional and non-generic combination of claim limitations is patently distinct from and

improved upon what may have been considered conventional or generic in the art at the priority date. The '951 patent also identifies and circumscribes all information necessary for a skilled artisan to perform each limitation in the claims in light of that which was known in the art at the priority date.

53.

Defendant has directly infringed and continues to directly infringe at least one or more claims of the '951 Patent, through, among other activities, making, using, and incorporating into Defendant's Alinsco application claimed systems and methods. Defendant's Alinsco application is provided, at least in part, as a smartphone-deployed driver-behavior monitoring and reporting solution.

54.

Independent Claim 10 of the '951 Patent, shown in italics, recites:

10. A wireless communications device (WCD), comprising: one or more memories that store computer program code; and one or more processors that execute the computer program code, the computer program code comprising:

The Alinsco application is a system that uses a smartphone application for determining and reporting unsafe driver behaviors. The system includes smartphone accelerometers and gyroscopes for monitoring when a user starts and finishes driving, disables device while driving, driver behaviors, such as harsh braking, aggressive acceleration, and cornering.

instructions to produce data from one or more sensors associated with the WCD; instructions to determine a human body physical activity (HBPA) associated with a WCD user based upon the data;

The Alinsco application monitors driver behavior by using an application ("code") to monitor the accelerometer x, y and z axis, and/or gyroscope x, y and z axis data for determining when a user

starts driving a vehicle, when the user picks up and uses their phone while driving, and when the user stops driving a vehicle.

instructions to select a mode of operation from a set of modes, based upon the determined HBPA, the set including different modes of operation involving initiation of different investigation processes that capture different types of data; and

The Alinsco application determines when a user is driving and/or riding in a vehicle, this starts the driver monitoring processes.

instructions to communicate the data to a remote computer system.

The Alinsco application communicates surveillance information (unsafe breaking, accelerations and cornering) to a remote server that maintains a daily, weekly monthly log of the driver behaviors.

COUNT IV

DIRECT INFRINGEMENT OF THE '914 PATENT

55.

Plaintiff incorporates by reference the allegations of Paragraphs 1-21.

56.

The claims of the '914 patent are not directed to an abstract idea and are not limited to well-understood, routine, or conventional activity. Rather, the claimed inventions include inventive components that allow detection of various motion activities from sensors whose orientation is dynamic and unknown.

57.

The written description of the '914 patent describes in technical detail each limitation of the claims, allowing a skilled artisan to understand the scope of the claims and how the non-conventional and non-generic combination of claim limitations is patently distinct from and

improved upon what may have been considered conventional or generic in the art at the priority date. The '914 patent also identifies and circumscribes all information necessary for a skilled artisan to perform each limitation in the claims in light of that which was known in the art at the priority date.

58.

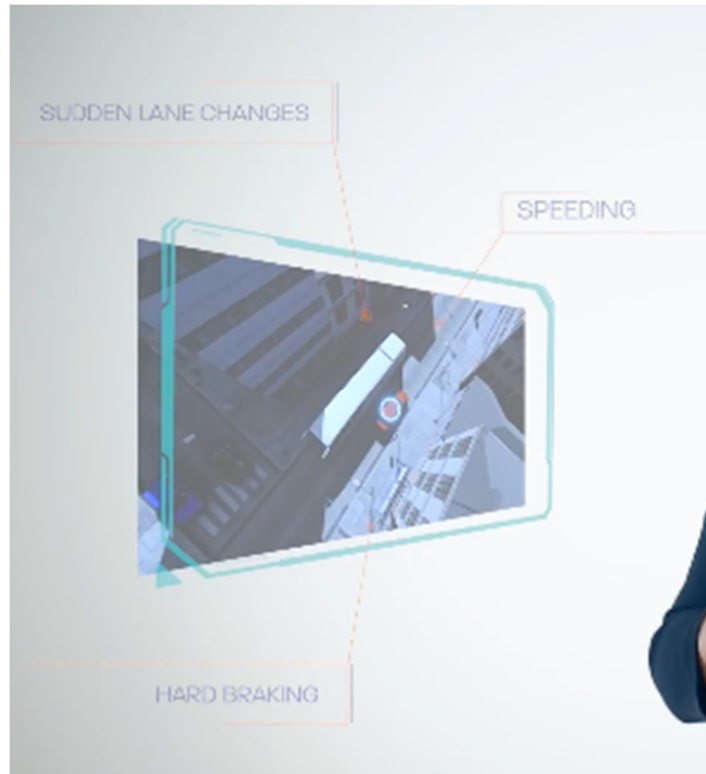
Defendant has directly infringed and continues to directly infringe at least one or more claims of the '914 Patent, through, among other activities, making, using, and incorporating into Defendant's Alinsco application claimed systems and methods. Defendant's Alinsco application is provided, at least in part, as a smartphone-deployed driver-behavior monitoring and reporting solution.

59.

Independent Claim 5 of the '914 Patent, shown in italics, recites:

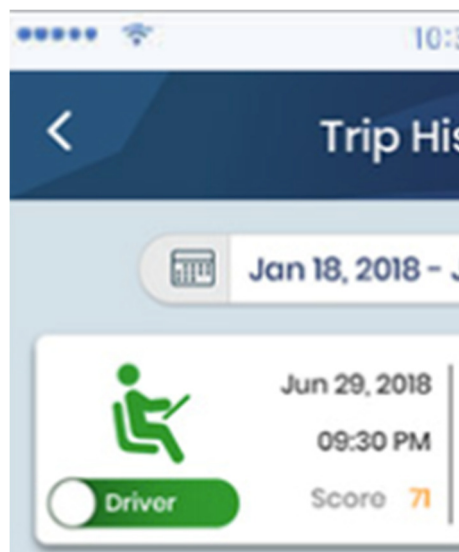
5. A system comprising: at least one computing device; and at least one application executable in the at least one computing device, the application comprising:

The Alinsco application is a system that uses a smartphone application for determining and reporting unsafe driver behaviors. The system includes smartphone accelerometers (x, y, and z axis) and gyroscopes (x, y, and z axis) for monitoring driver behaviors, such as harsh braking, aggressive acceleration, and cornering.



logic that determines a user activity and/or user surroundings;

The Alinsco application monitors when users are driving or riding in vehicles.



logic that determines a surveillance mode that corresponds to the user activity and/or the user surroundings;

The Alinsco application determines driving behaviors or distractions to driving in the surveillance mode.

logic that facilitates a user-defined response to the user activity and/or the user surroundings; and

When the Alinsco application determines phone usage, the device displays the event to allow the driver to see and respond to the messaging system (if they are a passenger, or if they are monitoring the application identification/logging processes).

logic that communicates surveillance information to at least one remotely located computer device.

The Alinsco application communicates surveillance information of a driver's event to a monitoring center, fleet manager, and/or the server that maintains trip records.

60.

Independent Claim 15 of the '914 Patent, shown in italics, recites:

15. A method comprising the steps of: determining, by a computing device, a user activity and/or user surroundings;

The Alinsco application is a system that uses a smartphone application for determining and reporting unsafe driver behaviors. The system includes smartphone accelerometers (x, y, and z axis) and gyroscopes (x, y, and z axis) for monitoring driver behaviors, such as harsh braking, aggressive acceleration, and cornering.



determining, by the computing device, a surveillance mode that corresponds to the user activity and/or the user surroundings;

The Alinsco application determines when a user is driving and/or riding in a vehicle, this starts the driver monitoring processes.

facilitating, by the computing device, a user-defined response to the user activity and/or the user surroundings; and

When the Alinsco application determines phone usage, the device displays the event to allow the driver to make calls, see and respond to the messaging system.

communicating, by the computing device, surveillance information to at least one remotely located computer device.

The Alinsco application communicates surveillance information of the driver's event(s) and trip information to a monitoring center, fleet manager, and/or monitoring servers.

COUNT V

DIRECT INFRINGEMENT OF THE '273 PATENT

61.

Plaintiff incorporates by reference the allegations of Paragraphs 1-21.

62.

The claims of the '273 patent are not directed to an abstract idea and are not limited to well-understood, routine, or conventional activity. Rather, the claimed inventions include inventive components that allow detection of various motion activities from sensors whose orientation is dynamic and unknown.

63.

The written description of the '273 patent describes in technical detail each limitation of the claims, allowing a skilled artisan to understand the scope of the claims and how the non-conventional and non-generic combination of claim limitations is patently distinct from and improved upon what may have been considered conventional or generic in the art at the priority date. The '273 patent also identifies and circumscribes all information necessary for a skilled artisan to perform each limitation in the claims in light of that which was known in the art at the priority date.

64.

Defendant has directly infringed and continues to directly infringe at least one or more claims of the '273 Patent, through, among other activities, making, using, and incorporating into Defendant's Alinsco application claimed systems and methods. Defendant's Alinsco application is provided, at least in part, as a smartphone-deployed driver-behavior monitoring and reporting solution.

65.

Independent Claim 12 of the '273 Patent, shown in italics, recites:

12. A method, comprising: receiving first and second data from an accelerometer associated with a wireless communication device (WCD) transported by a mobile thing (MT), the first and second data indicative of acceleration of the WCD;

The Alinsco application is a system that uses a smartphone application for determining and reporting unsafe driver behaviors. The system includes smartphone accelerometers and gyroscopes for monitoring driver behaviors, such as hard braking, unsafe maneuvers, rapid acceleration, and phone usage distractions. Accelerometer and gyroscope data is measured in timed data blocks that include time and frequency measurements.



determining reference data that defines a reference framework in two dimensions (2D) of space from the first data;

The Alinsco application, coupled to the smartphone sensors, determines gravity and its influences to the 3D data (accelerometer x , y and z axis) and corrects the gravity influences to the data and/or determines the vertical and horizontal directions of the sensed data to allow for the accurate calculation in a time and frequency domain that is in a 2D framework.

normalizing the second data with the reference data so that the second data can be analyzed in the 2D space; and

In response to receiving live data, the data is sampled by time, ranges, and/or averages, which is using a 2D analysis with the removal of gravity influences and/or with the vertical and horizontal axis in a 2D space.

identifying a mobile thing motion activity (MTMA) associated with the MT based upon the normalized second data.

The Alinsco application monitors driver behavior by measuring the live accelerometer data against a corrected (gravity corrected and/or rotation) time and/or frequency domain that identifies each motion activity based on the normalized (corrected) data.

66.

Independent Claim 22 of the '273 Patent, shown in italics, recites:

22. A method, comprising: receiving a time value and three streams of data sample values from an accelerometer of a wireless communication device (WCD) that is transported by a mobile thing (MT), each data sample value indicative of an acceleration of the WCD along an axis of a three dimensional (3D) coordinate system at a corresponding time value;

The Alinsco application telematics solution is a system that uses a smartphone application for determining and reporting unsafe driver behaviors. The system includes smartphone accelerometers with *x*, *y* and *z* axis and gyroscopes with *x*, *y* and *z* axis for monitoring driver violations in a 3D coordinate system.



Claim 22 continues:

computing reference data, the reference data defining a relationship between data sample values and a reference framework to enable comparison of 3D sets of data sample values;

The Alinsco application uses the accelerometer to determine gravity and its influences to the x , y and z axis of the 3D data and corrects the gravity influences to the data and/or determines the vertical direction of gravity of the sensed data to allow for the accurate calculation in a time and frequency domain.

calculating movement data for each set based upon the reference data; and

By understanding the gravity influences, live data may be accurately calculated by direction, by time, peaks, ranges, and/or averages.

determining a moving thing motion activity (MTMA) associated with the MT based upon the movement data.

By comparing the reference data with live accelerometer data that is normalized (by determining gravity direction, gravity influences, the data peaks, frequencies, timing, etc.), the motion activity is determined, logged and provided for driver scores and alerts.

PRAYER FOR RELIEF

WHEREFORE, Plaintiff prays for relief that the Court enter judgment in their favor and against Defendant, granting the following relief:

That the Court enter a judgment that one or more claims of the '846 Patent have been infringed either literally and/or under the doctrine of equivalents, by Defendant;

That the Court enter judgment that one or more claims of the '558 Patent have been infringed either literally and/or under the doctrine of equivalents, by Defendant;

That the Court enter judgment that one or more claims of the '951 Patent have been infringed either literally and/or under the doctrine of equivalents, by Defendant;

That the Court enter judgment that one or more claims of the '914 Patent have been infringed either literally and/or under the doctrine of equivalents, by Defendant;

That the Court enter judgment that one or more claims of the '273 Patent have been infringed either literally and/or under the doctrine of equivalents, by Defendant;

That Defendant be ordered to pay damages adequate to compensate Plaintiff for its acts of infringement, pursuant to 35 U.S.C. § 284;

That Plaintiff be awarded increased damages under 35 U.S.C. § 284 due to Defendant's willful infringement of the '846, '558, '951, '914, and '273 Patents;

That the Court find that this case is exceptional and award Plaintiff reasonable attorneys' fees pursuant to 35 U.S.C. § 285;

That Defendant, its officers, agents, employees, and those acting in privity with it, be preliminarily enjoined from further infringement, contributory infringement, and/or inducing infringement of the patent-in-suit, pursuant to 35 U.S.C. § 283;

That Defendant, its officers, agents, employees, and those acting in privity with it, be permanently enjoined from further infringement, contributory infringement, and/or inducing infringement of the patent-in-suit, pursuant to 35 U.S.C. § 283;

That Defendant be ordered to pay prejudgment and post-judgment interest;

That Defendant be ordered to pay all costs associated with this action; and

That Plaintiff be granted such other and additional relief as the Court deems just, equitable, and proper.

DEMAND FOR JURY TRIAL

Pursuant to Fed. R. Civ. P. 38(b), Plaintiffs demands a jury trial on all issues justiciable by a jury.

Respectfully Submitted,

Dated: May 9, 2023

/s/ Brett Thomas Cooke

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